Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines

Air Resources Board Meeting
September 28, 2000

California Environmental Protection Agency

Air Resources Board

Overview

- Background
- Overall approach
- Suggested permitting approach
- Issues
- Summary and recommendation

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Purpose

- Ensure new stationary diesel-fueled engines use best available control technology
- Provide criteria for a consistent permitting approach
- Provide diesel-specific Permitting Guidance
- Address near-source exposure and potential risk

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How did we develop the Guidance?

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Risk Management Subcommittee and Advisory Committee

- Advisory Committee and four subcommittees established in 1998
- Risk Management Subcommittee has met six times over the last two years
- Comprised of representatives from U.S. EPA, state and local agencies, industry, environmental groups, and interested public

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What diesel-fueled engines are addressed by the Guidance?

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Background

Examples of Stationary Engines Addressed by Guidance

- New emergency standby engines
- New compressors
- New pumps
- New rockcrushers
- New shipyard cranes
- New primary power generators

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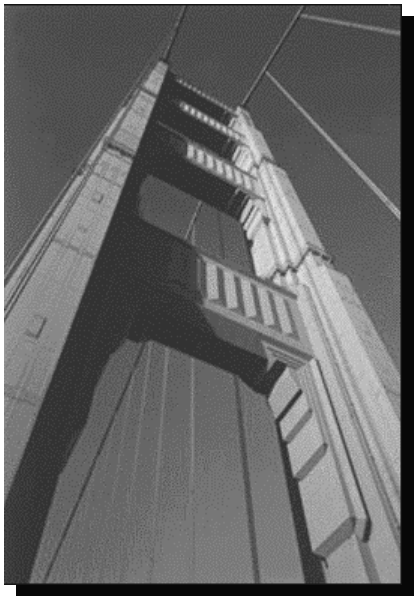
Overall Approach



What is the overall approach to permitting defined in the Guidance?

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Overall Approach

Permitting Approach

- Based on engine application and hours of operation
- Technology requirements
- Performance standards
- Health risk assessment requirements for certain applications

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Suggested Permitting Approach

Emergency Standby Engines

- Used to provide emergency power or the emergency pumping of water
- Staff estimates approximately 100 new emergency standby engines will be permitted each year

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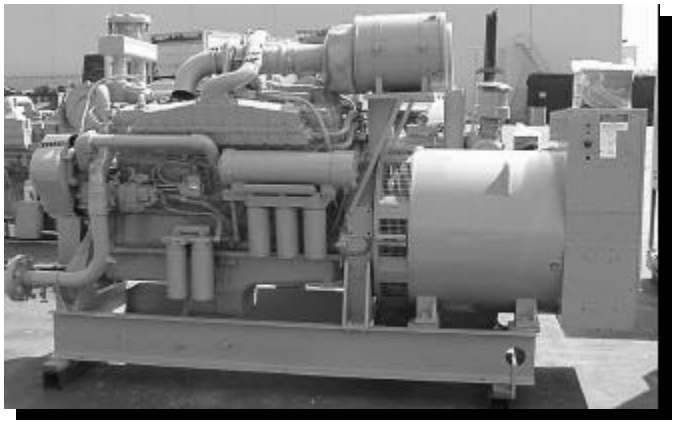
Emergency Standby Engine



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Emergency Standby Engines Prior to March 2002

- Hours of operation
  - ≤ 100 hours per year for maintenance
- Technology requirements
  - 0.1 g/bhp-hr
  - CARB Diesel
- Optional performance standard
  - 0.1 g/bhp-hr
- Emergency standby engines must accommodate the installation of a diesel particulate matter trap

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Suggested Permitting Approach

Engines Other Than Emergency Standby

- Examples include pumps, compressors, power generators, rockcrushers.
- Staff estimates 20 to 30 new engines permitted each year

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Suggested Permitting Approach

Engines Operating ≤ 400 hours per year

- Technology requirements
  - 0.1 g/bhp-hr
  - very low-sulfur CARB diesel
  - add-on control: Diesel PM Trap
- Optional performance standard
  - 0.02 g/bhp-hr

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Engines Operating >400 hours per year

- Technology requirements
  - 0.1 g/bhp-hr
  - very low-sulfur CARB diesel
  - diesel PM trap
- Optional performance standard
  - 0.02 g/bhp-hr
- Additional requirements
  - health risk assessment
  - specific findings report

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Specific Findings Report

- Summarizes information a district should consider before making permit decision
- Information could include:
  - refined HRA
  - site-specific design considerations
  - further control options

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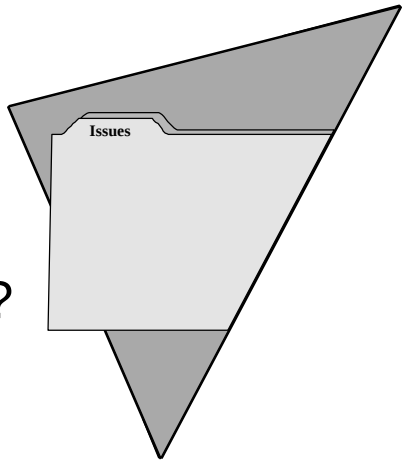
What issues have been raised regarding the suggested approach?



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Issues

Issues

- Use of diesel particulate matter traps on emergency standby engines
- Availability of very-low sulfur diesel fuel

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Summary

- Guidance is based on engine application and hours of operation
- Technology requirements
- Optional performance standards
- Health risk assessment requirements in certain situations

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Staff's Recommendation

- Approve the Guidance

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